



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/592,998

05/07/2007

Peter Isberg

9561-9

8467

54414

7590

09/30/2008

MYERS BIGEL SIBLEY & SAJOVEC, P.A.

P.O. BOX 37428

RALEIGH, NC 27627

EXAMINER

LE, HUYEN D

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/592,998	Applicant(s) ISBERG ET AL.	
	Examiner HUYEN D. LE	Art Unit 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/15/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 5, 8 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Toki (GB 2347302).

Regarding claim 1, Toki teaches a communications unit that comprises a first housing part (4) with a speaker transducer (8) arranged in the first housing part to output sound signals through the opening (10) in a housing wall of the first housing part, and a second housing part (6) movably connected to the first housing part (4) as claimed. As shown in figures 1, 2, 5 and 6, the first and second housing parts (4, 6) can be moved to a closed position, in which the second housing part (6) covers the opening (10), and moved to an open position, in which the opening (10) is exposed. Further, Toki teaches a closed cavity (20) with an opening (18, 36) connecting the cavity (20) to the ambient air when the first and second housing parts are in the closed position, where the cavity and opening form a resonator as claimed.

Regarding claim 2, as shown in figures 2 and 6, Toki shows the cavity (20) that defines a space between the housing wall and the transducer.

Regarding claims 3 and 8, as shown in figures 2 and 6, Toki shows the cavity (20) that defines a space between the housing wall and the second housing part (6).

Art Unit: 2615

Regarding claims 5 and 11-13, Toki shows that a groove (18, 36) in the first housing part forms the opening connecting the cavity to the ambient air as claimed (figures 2, 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4, 6, 7, 9, 10, and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toki (GB 2347302).

Regarding claims 4, 9 and 10, Toki does not specifically teach that the opening (18, 36) connecting the cavity (20) to the ambient air extends through a tube as claimed. However, Toki does not limit the configuration for the opening (18, 36) which extends from the open end (14) of the hole (10) or the cavity (20) to the end of the housing part (4).

Art Unit: 2615

Therefore, it would have been obvious to one skilled in the art to provide any configurations for the opening (18, 36) such as a tube in a first housing part for an alternate choice and the desired frequency characteristics.

Regarding claims 6, 7 and 14-16, Toki does not specifically teach a Helmholtz resonator and the cavity (20) which is configured to form standing waves in the resonator as claimed. However, Toki does not limit the size or the configuration for the cavity (20).

Therefore, it would have been obvious to one skilled in the art to provide any size or configuration for the cavity such as the cavity and the opening (18, 36) forming a Helmholtz resonator or the cavity which is configured to form standing waves in the resonator at an integer multiple of a quarter of the wavelength at the resonance frequency for better providing the desired frequency characteristics to the device.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Toki (U.S. patent 6,678,504) teaches a foldable handy phone which comprises a groove formed in a surface of a receiver case and extending from an open end of a through hole to the other end of the receiver case.

Baechtold (U.S. 3,819,879) teaches a telephone receiver handset which includes a cover with a build-in structural acoustic Helmholtz resonator.

Art Unit: 2615

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SUHAN NI can be reached on (571) 272-7505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUYEN D. LE/
Primary Examiner, Art Unit 2615

HL
September 24, 2008